

ELECTRIC WATERCYCLE WITH VARIABLE ELECTRONIC GEARING AND HUMAN POWER AMPLIFICATION

ABSTRACT: A watercraft incorporating electrical power generation from human kinetic power, and electrical energy storage to enable amplification of human-power to propulsion power to achieve increased watercraft speeds. Control electronics enable operator-adjustable variable electronic gearing, and an assortment of torque vs. speed loading characteristics of the generator, thereby providing optimal pedal cadences and enjoyment for a wide variety of operators. An optional photovoltaic solar panel augments the power generation to extend travel time with power amplification, and recharges the energy storage system. This invention provides a pleasure watercraft that is simultaneously lightweight, low cost, low maintenance, environmentally friendly with zero pollution, ultra-low noise, and thrilling to operate, while simultaneously providing a means of enjoyable exercise for operators of nearly all abilities.